

Application number: 10/690,960 Applicant: Jay B. Dinhofer Examiner: Bena Miller 3712

REMARKS

In order to understand the exclusivity and novelty of our claims you must understand the difference in the actions of the three different types of springs that are used and presently patented in a large number of devices. You must also be aware of the differences in action that can be obtained from the same type of spring. Enclosed is a Glossary of spring definitions and Hooks law related to the design differences of similar springs.

The three types of springs with examples of the same spring performing different functions is as follows:

1) the **TORSION SPRING** which derives its usefulness by trying to return to its original shape when subject to a load travelling around its axis, in other words trying to return to its original shape when twisted. The two best examples are the hair-spring in a wind-up watch and the clothespin spring.

2) the **EXTENSION SPRING** which derives its usefulness because it pulls against a load which makes it longer, in other words it returns back to its original position when stretched out and released. The two best examples are the Slinky toy spring and the screen door spring.

3) the **COMPRESSION SPRING** which derives its usefulness because it pushes against a load which makes it smaller, in other words it snaps out to its original position when squeezed and released. The two best examples are our gyrating toy and the shock absorbing springs in a car.

In each of the above three types of springs I have included as examples a soft spring and a stiff spring in accordance with Hooks Law. The easiest way to understand the difference between a soft spring and a stiff spring is to compare the Slinky spring and the

~~the locking indentations on the end of the spring, described in claim 6), index the face and the feet so they are always facing in the proper direction,~~

[a light weight piping is snaked around the coiled spring to simulate clothing without attenuating the oscillations.

Changed to:] The bouncing, gyrating toy doll described in claim 1 wherein a light weight piping is snaked around the coiled spring to simulate clothing without attenuating the oscillations of the spring .

14) (Currently amended) [Wherein the open base of the spring is crosshatched or closed preventing a young child from placing the spring over his head like a hat. **Changed to:]** The bouncing, gyrating toy doll of claim 1, wherein the large circular molded plastic channel at the base of the spring is crosshatched diametrically across its diameter preventing a young child from placing the spring over his head like a hat.

15) (Currently amended) [Wherein a filament is connected between the weighted head and the weighted base, the length of the filament allowing it to remain slack while the toy is oscillating but when the toy is lifted by the head or the hand the filament does not allow the weighted base of the spring to stretch the spring beyond its tensile limit and distort. **Changed to:]** The bouncing, gyrating toy doll of claim 1, wherein a mono-filament, being no part of the action of the toy, is connected between the base of the weighted head and the weighted base, with the length of the filament being longer than the maximum apogee of the spring when in play allowing the filament to remain slack while the toy is oscillating not interfering with the development of the kinetic energy in the spring and not adding to the play value of the spring or adding any friction or obstruction but when the toy is not in use and is lifted and carried by the head or the hand the filament prevents the weighted base of the spring from stretching the spring beyond its tensile limit and permanently distorting itself.

Amendments approved by:

Jay B. Dinhofer

spring (L) attached to base (B) and base (D) is necessary for the action of the toy preventing the spring from stretching too far upward and thus allowing the base (D) with the comic figure (E) on it to leave the container (A) and fall over. The same is true of Thomas's articulated toy. His string (36) is necessary for the action of the toy preventing the beer mug from hitting the figure in the face. Leach amusement device is a stiff spring, confined, limited action, one-shot compression spring similar in many respects to Thomas and Haverman. Ford leaping figure toy is again a stiff spring totally confined compression spring with a limited one-shot and reload action. Goldfarb Impact reaction toy again is a stiff spring totally confined compression spring with a limited one-shot and reload action. Goldfarb game apparatus and time-delay action unit is again a stiff spring confined compression spring with a limited one-shot and reload action. Fels rocket-simulative toy is again a stiff spring confined compression spring with a limited one-shot and reload action. Chippock jumping-toy is again a stiff spring totally confined compression spring with its action limited by tube (A) and string (H) to a one-shot and reload action.

The most obvious conclusion is that if our soft spring compression spring replaced any of the above prior art examples of stiff spring compression spring toys none of them would operate. If the soft Slinky spring would replace any of the stiff springs in other extension spring patents, such as the screen door spring, none of them would operate. Soft springs are not one-shot springs. When set in motion they will stay in motion and with a properly balanced weight they will continue to oscillate for a considerable length of time. The balancing weight on a watch hair-spring is called the 'balance wheel'. The balance weight on a Slinky is its own extra weight at the top when it is placed below the level of its base.

spring is to all the other stiff spring compression springs. There was no prior art for the soft spring Slinky and there is no prior art for our soft spring gyrating toy.

Enclosures: Glossary of spring definitions; Hooks Law.

GLOSSARY

These are many of the common words that have definitions in the springmaking field. The definitions are my own (caveat) and are admittedly not complete. This is not a dictionary — it's just another tool